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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,171	06/15/2000	Eugene P. Marsh	M4065.132/P132	8887

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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L STREET NW
WASHINGTON, DC 20037-1526

EXAMINER

ECKERT II, GEORGE C

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 03/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/594,171

Applicant(s)
Marsh

Examiner
George C. Eckert II

Art Unit
2815



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 21, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 79-92 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 79-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on Dec 21, 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. Applicant's amendment dated December 21, 2001 in which claims 79-82 were amended and claims 83-92 added has been entered of record.

Priority

2. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification (37 CFR 1.78).

Drawings

3. The corrected or substitute drawings were received on December 21, 2001. These drawings are acceptable.

Specification

4. Objection to the title is overcome by the applicant's amendment.

Claim Objections

5. Objection to claim 82 because of the informalities is overcome by applicant's amendment.

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Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or before November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (Pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 79-87, 89 and 92, are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,090,697 to Xing et al. Xing et al. teach, with reference to figure 2, a capacitor comprising:

a barrier layer 210;

a first electrode 204 in contact with the barrier layer;

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a dielectric layer 212 in contact with the first electrode and the barrier layer; and

a second electrode 214 in contact with the dielectric layer.

Xing et al. further teach that the first electrode 204, which is the lower electrode (claim 82), may be formed from Pt (claims 80 & 81), Rh (claim 86), Pd (claim 87), Ir (claim 89) or Ru (claim 92), (see col. 4, lines 45-58). With regard to claim 85, these metals are inherently oxidation resistant.

Claims 79, 83 and 84 additionally include processing limitations which do not further limit the structure of these claims. Specifically, claim 79 cites that the “first [or] second electrodes comprises a constituent of an ultraviolet irradiated organic platinum group metal precursor” and claim 83 cites that the constituent is “oxygen annealed.” However, these limitations are drawn to the process by which the capacitor is made. That is, the electrode is processed using irradiation from an ultraviolet source, formed from an organic precursor as well as annealed in an oxygen ambient. However, it is the final product which is evaluated for patentability. Instantly, the final product is one comprising a platinum group electrode - that is, the electrode is formed of platinum, rhodium, iridium, etc. And this is what Xing et al. teach, including the additional platinum group metals. Regarding claim 84 which cites that the platinum group metal is essentially free of carbon, Xing et al. make no mention as to the carbon content of their final device and therefore, because carbon is detrimental to the device, it is inherent that their electrode is essentially free of carbon. In the alternative, applicant’s teach (instant specification, page 3, lines 4-5) that processing is known in the art which reduces the carbon content of such layers.

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Note that a “product by process” claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or not. Note that applicant has the burden of proof to in such cases, as the above caselaw make clear.

7. Claims 88, 90 and 91, are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,090,697 to Xing et al. and further in view of US 5,566,045 to Summerfelt et al. Xing et al. taught or made obvious the device of claim 79 as discussed above but did not expressly teach that the electrode may be formed of Os, Au or Ag. Summerfelt et al. teach that such metals are commonly used to form capacitor electrodes (see col. 17, lines 3-7. See also element 34 - bottom electrode - in the table starting in column 10).

Xing et al. and Summerfelt et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the additional materials taught by Summerfelt et al. in the device of Xing et al. The motivation for doing so is that such metals are well known and obvious material choice

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substitutions which allow greater latitude in the device design (e.g. different materials may be chosen based on specific parameters or even mere availability). Therefore, it would have been obvious to combine Xing et with Summerfelt et al to obtain the invention of claims 88, 90 and 91.

Response to Arguments

8. Applicant's arguments with respect to claims 79-82 have been considered but are moot in view of the new grounds of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Eckert II whose telephone number is (703) 305-2752.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Eddie Lee can be reached on (703) 308-1690. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


GEORGE C. ECKERT II
PATENT EXAMINER

GCE
March 6, 2002